

KIC 011147814

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
011147814-01	OBS	3334.01	95.178321	224.596769	128320.3	3.616	3152.3	2484.8	0.65	4523	28.99	1.29

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
011147814-01	OBS	FP	0.00	0	1	0	0	DEEP_V_SHAPED

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 011147814-01

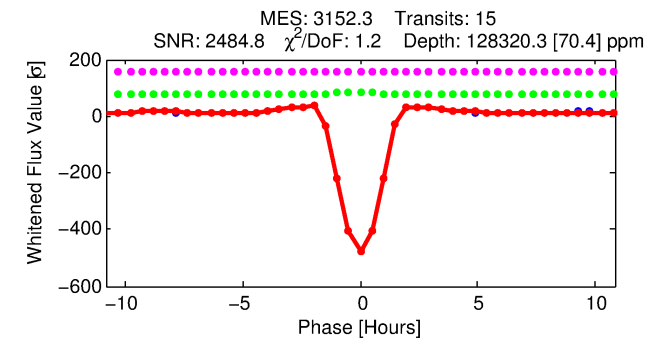
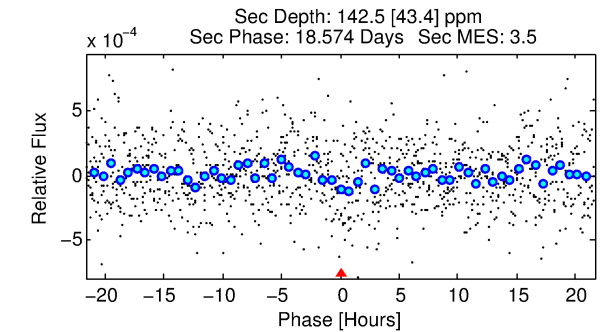
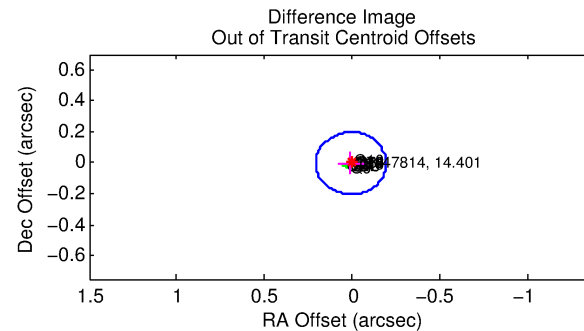
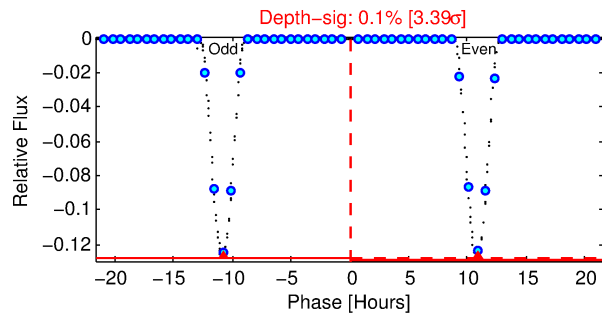
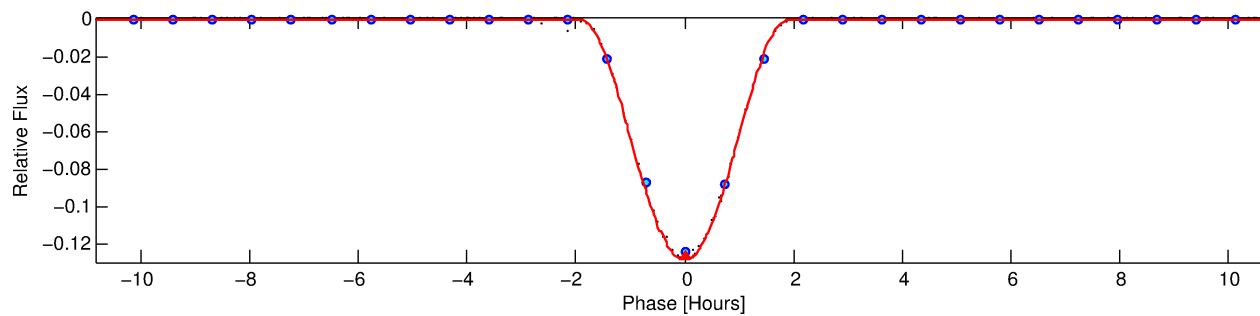
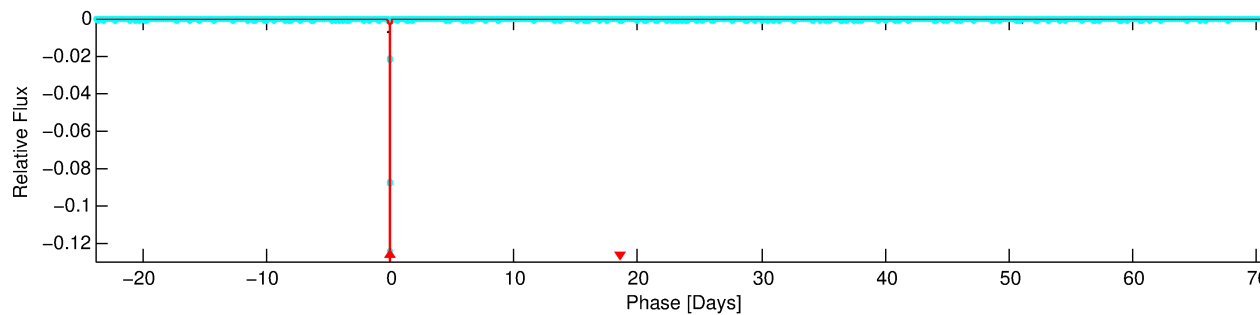
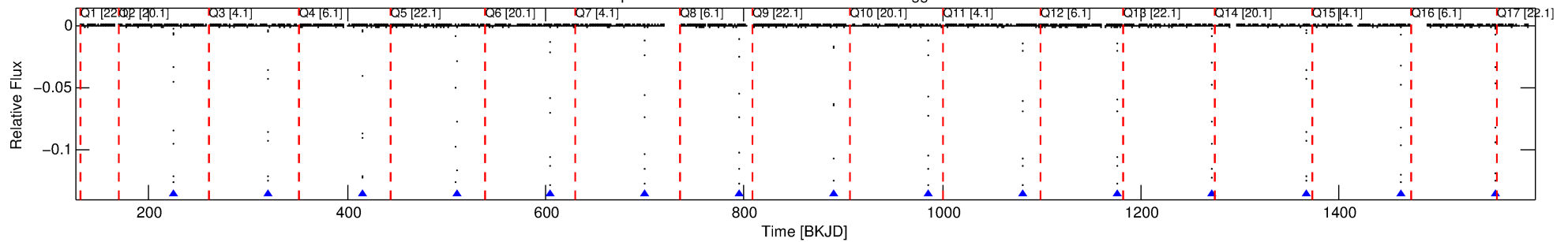
No Significant Match Found

DV One-Page Summary

KIC: 11147814 Candidate: 1 of 1 Period: 95.178 d

KOI: K03334.01 Corr: 0.999

Kp: 14.40 R*: 0.65 Rs Teff: 4523.0 K Logg: 4.62 Fe/H: -0.240



DV Fit Results:

Period = 95.17832 [0.00000] d
 Epoch = 224.5968 [0.0000] BKJD
 Rp/R* = 0.4069 [0.0053]
 a/R* = 237.03 [0.14]
 b = 0.77 [0.01]
 Seff = 1.29 [0.20]
 Teq = 272 [11] K
Rp = 28.99 [2.60] Re
 a = 0.3518 [0.0251] AU
 Ag = 11.55 [3.71] [2.84σ]
 Tefp = 775 [64] K [7.80σ]

DV Diagnostic Results:

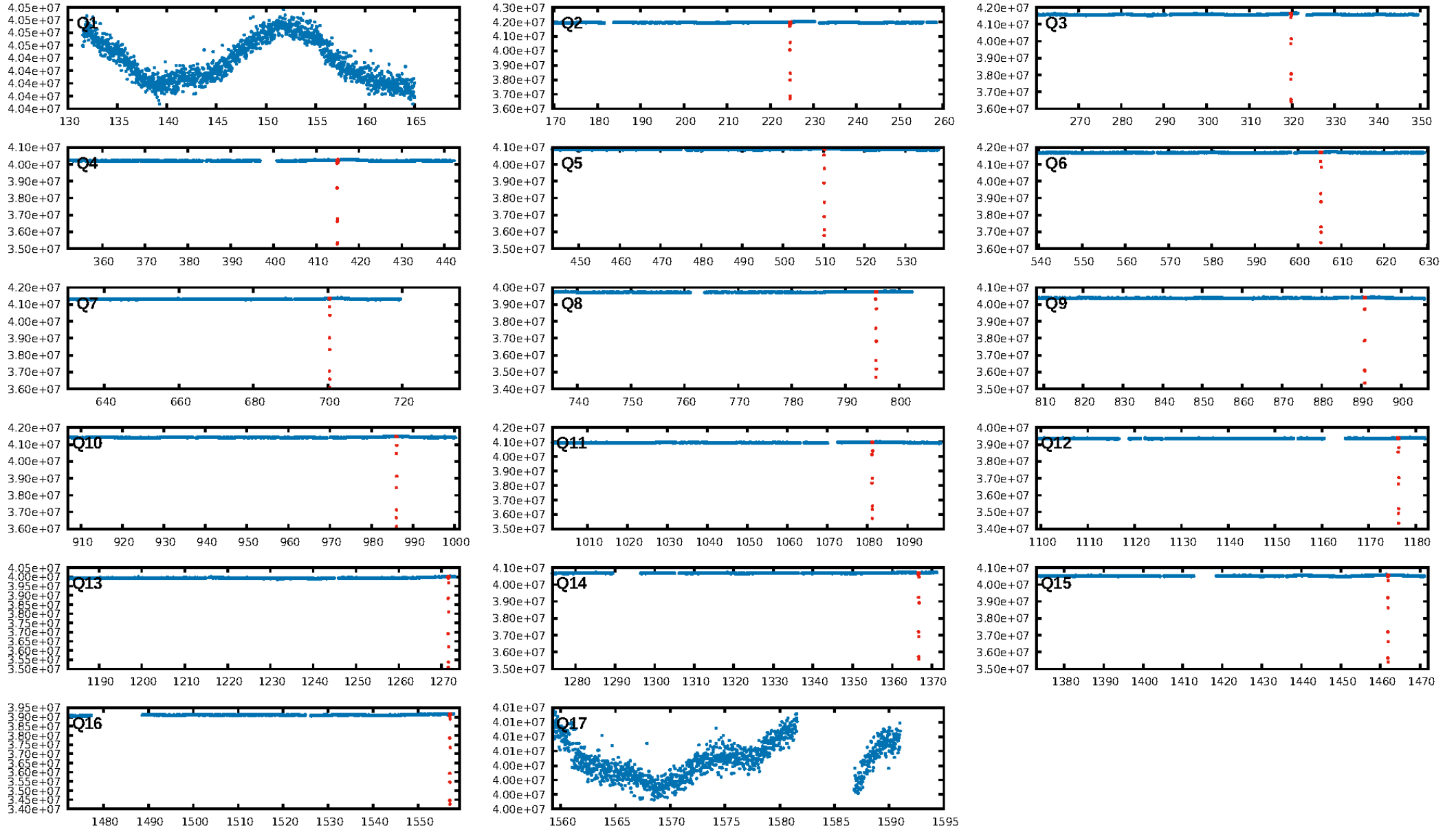
ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: 0.0%
ModelChiSquareGoF-sig: 0.9%
Bootstrap-pfa: 0.00e+00
RollingBand-fgt: 1.00 [15/15]
GhostDiagnostic-chr: 3.823

Centroid-sig: 0.0%
Centroid-so: 0.049 arcsec [11.64σ]
OotOffset-rm: 0.009 arcsec [0.14σ]
KicOffset-rm: 0.024 arcsec [0.36σ]
OotOffset-st: 4/4/4/3 [15]
KicOffset-st: 4/4/4/3 [15]
DiffImageQuality-fgm: 1.00 [15/15]
DiffImageOverlap-fno: 1.00 [15/15]

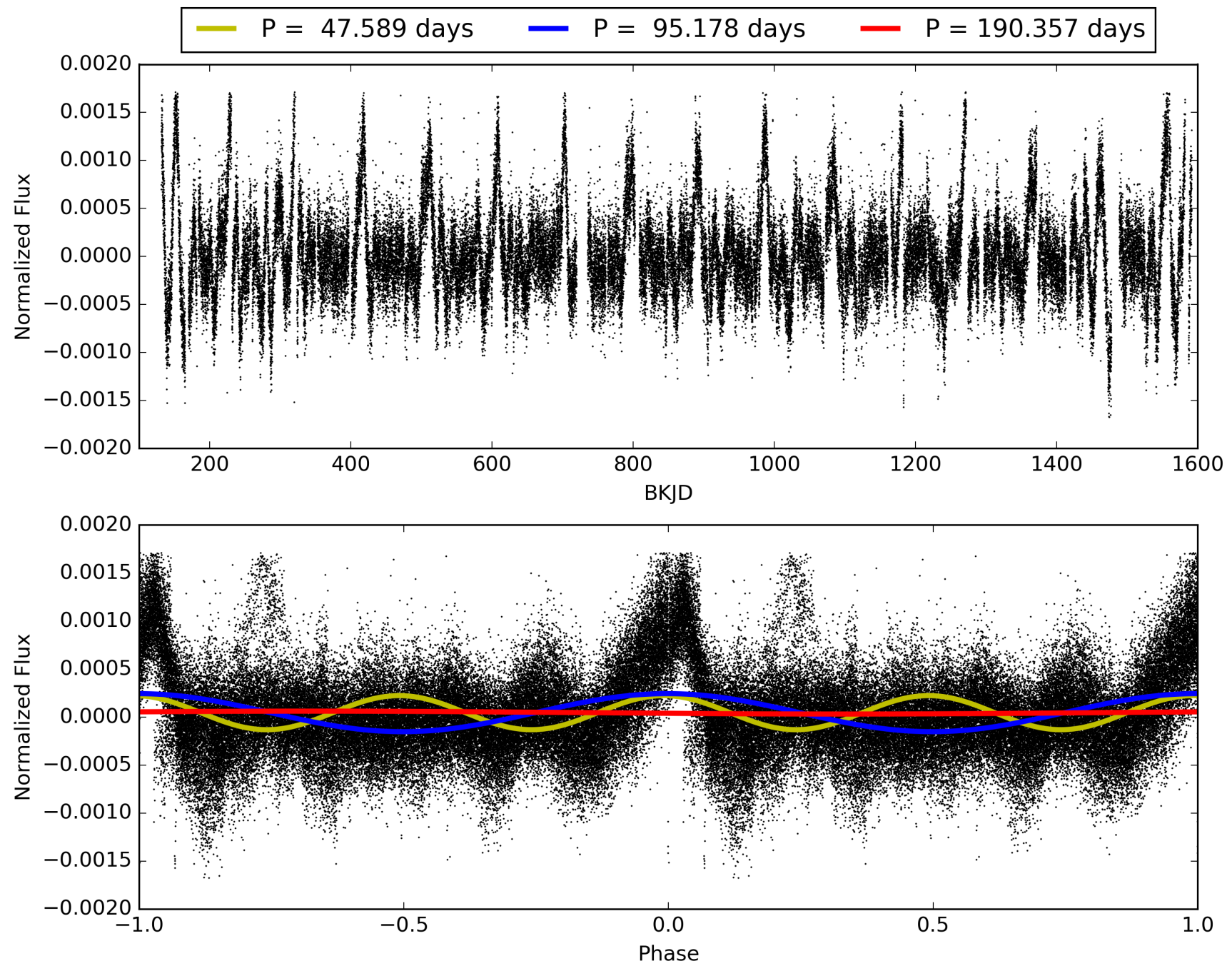
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 10:19:22 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 011147814-01, PDC Light Curves

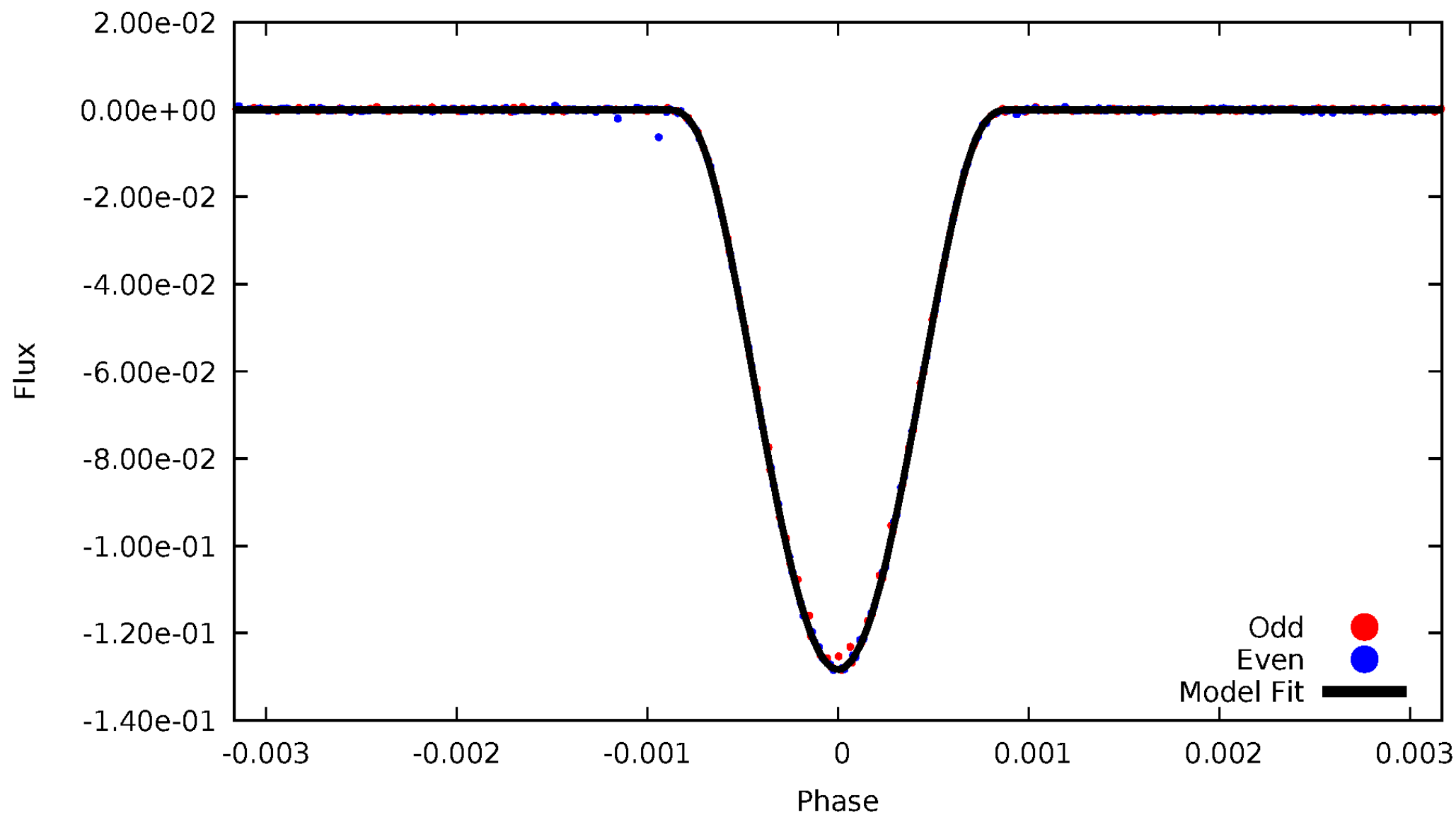


TCE 011147814-01



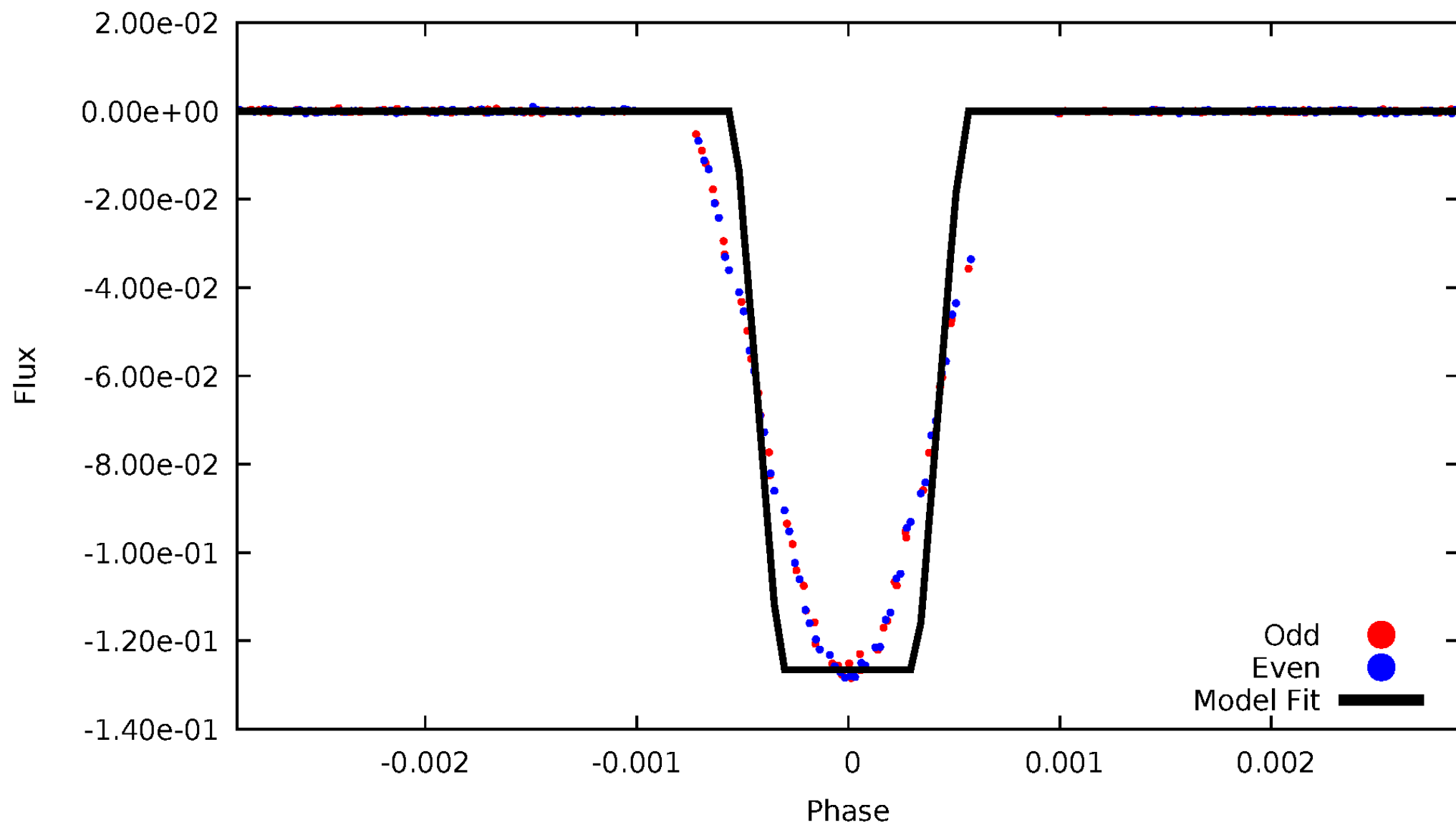
DV Odd/Even

TCE 011147814-01



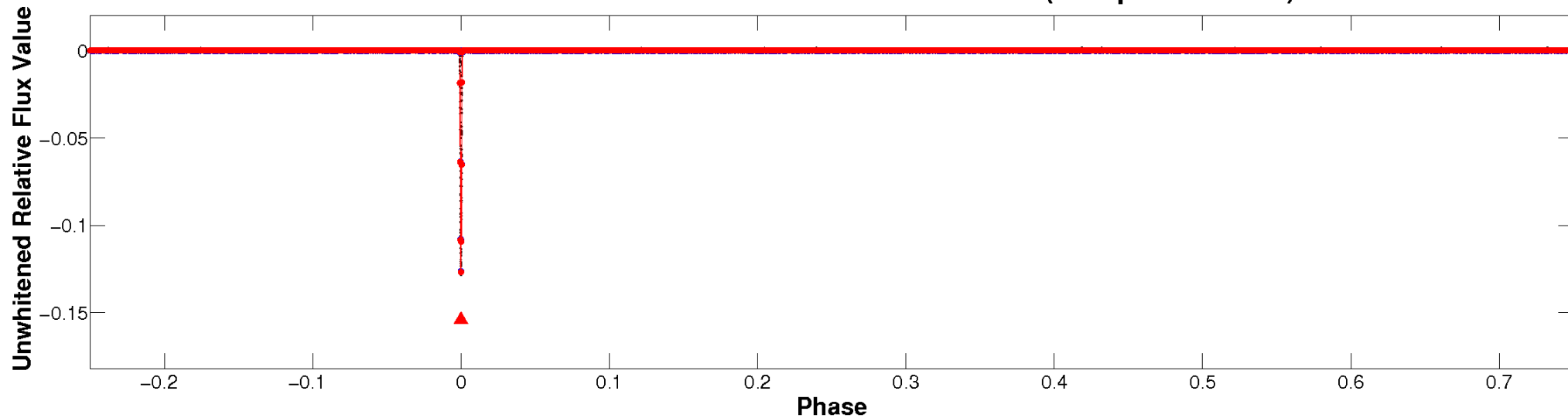
ALT Odd/Even

TCE 011147814-01

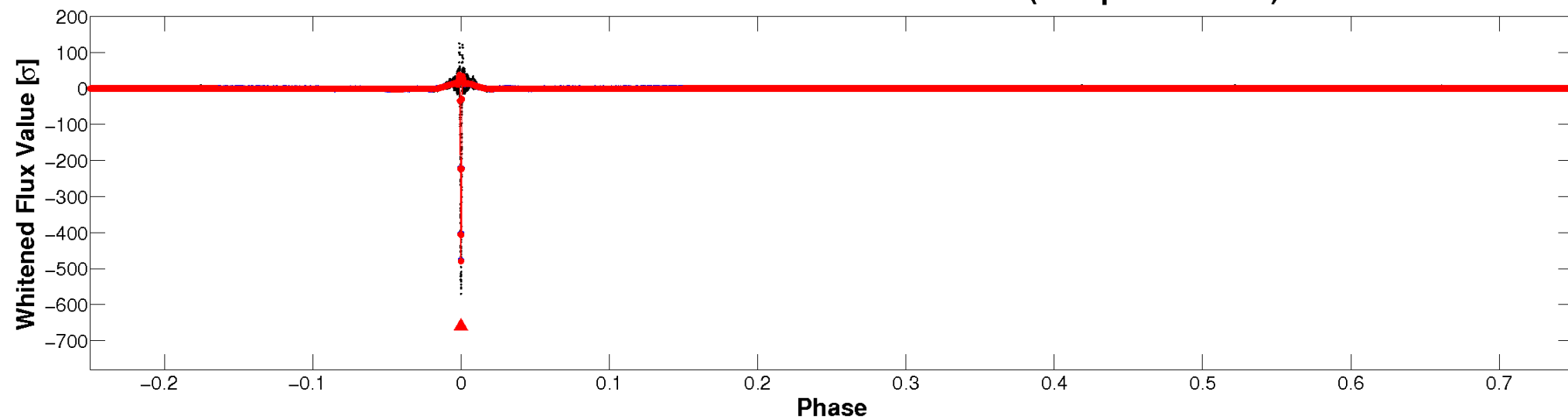


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

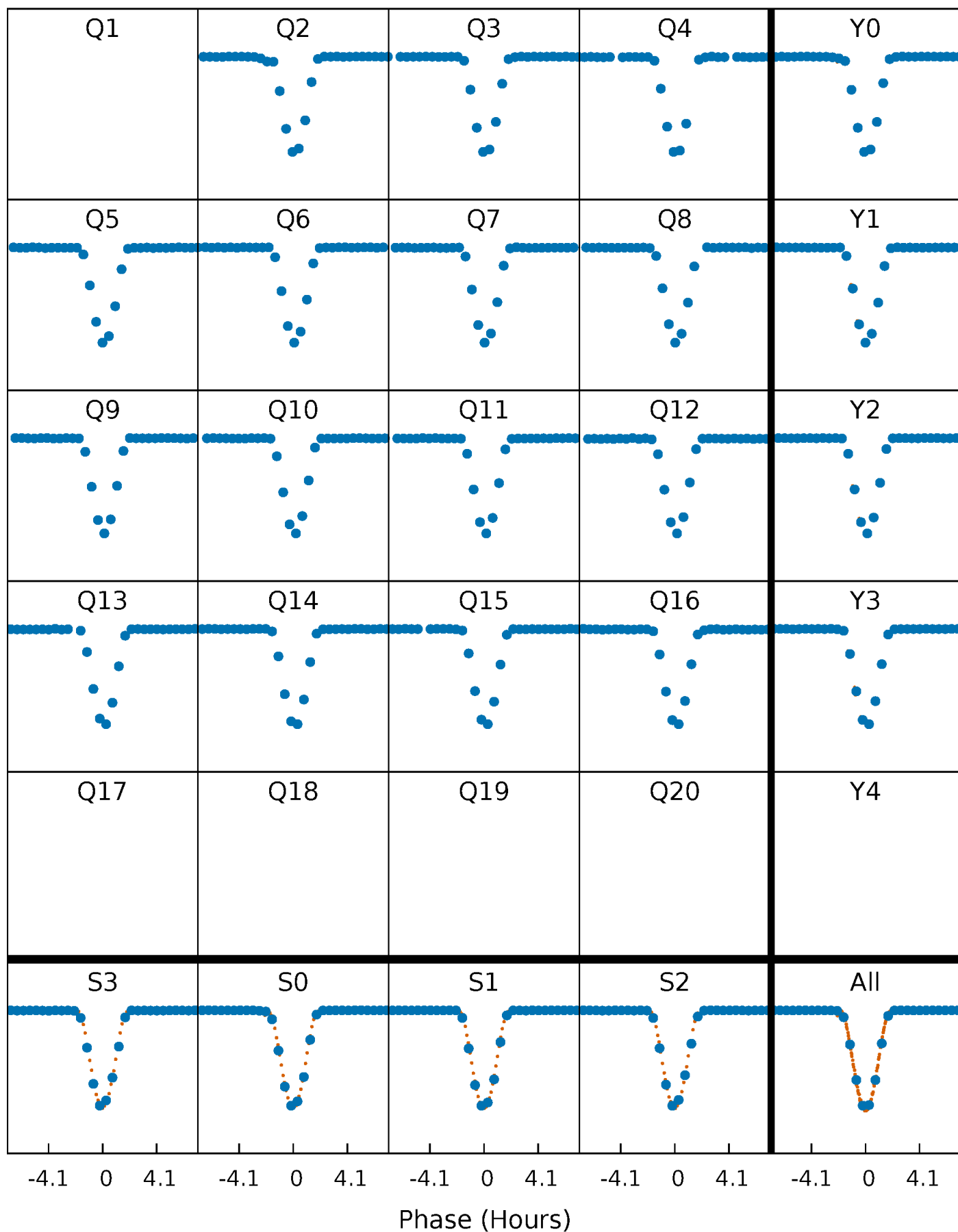


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



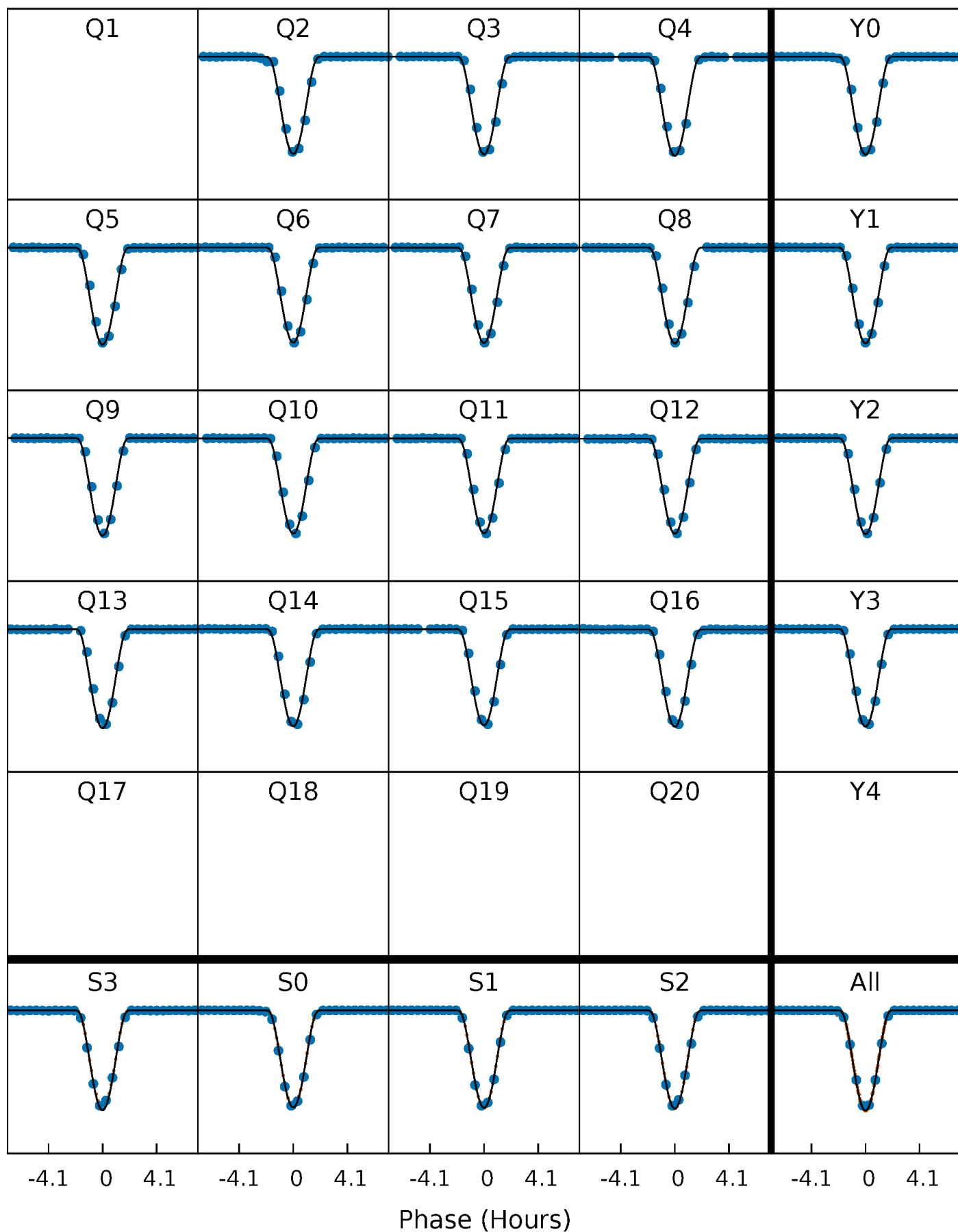
PDC Quarter-Phased Transit Curves

TCE 011147814-01 P= 95.178321 Days $T_0=224.596769$ (BKJD)



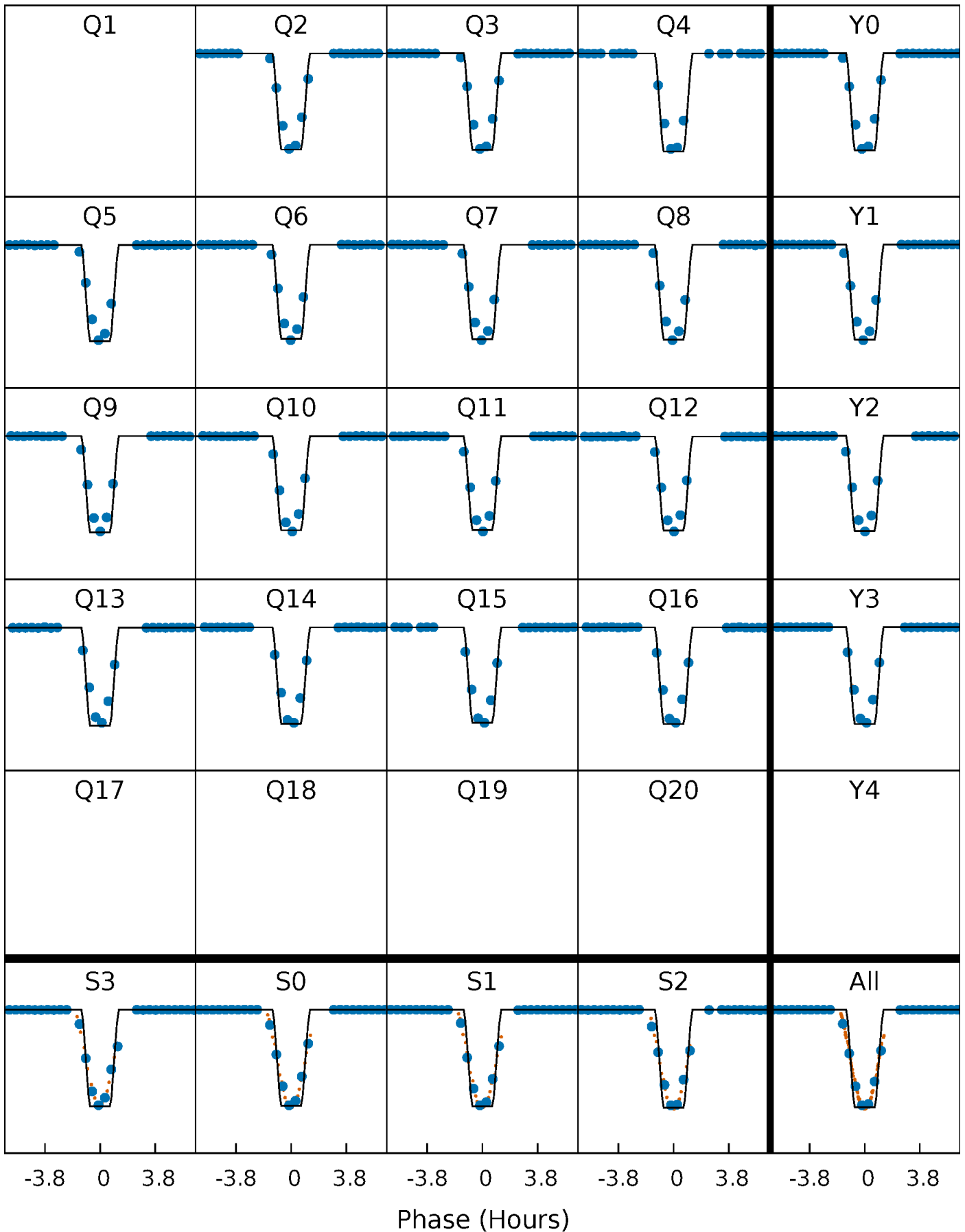
DV Quarter-Phased Transit Curves

TCE 011147814-01 P= 95.178321 Days $T_0=224.596769$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

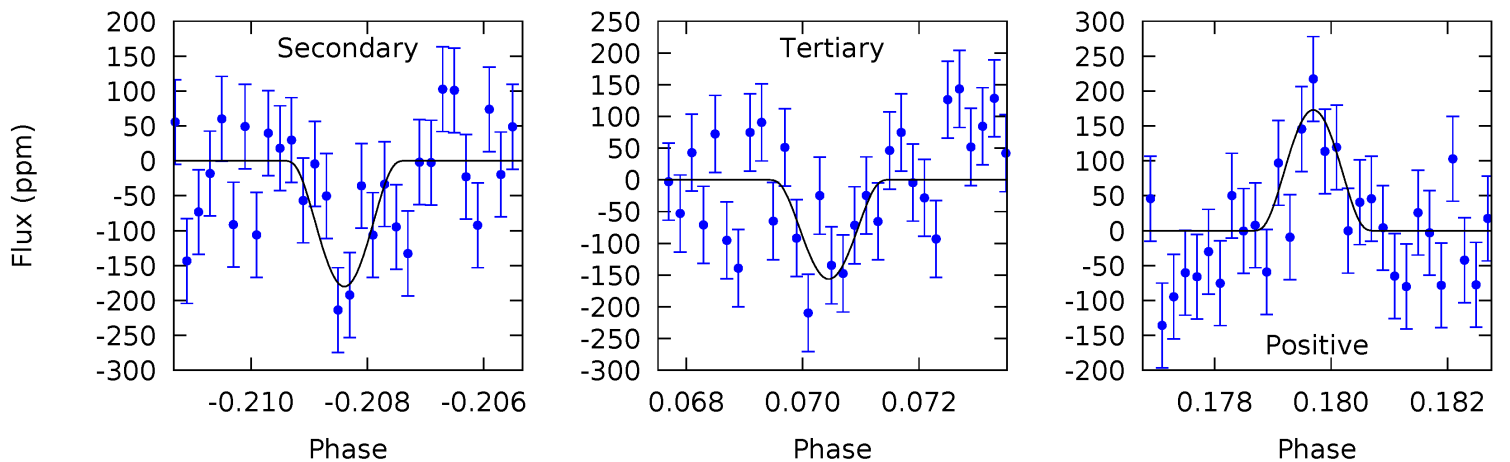
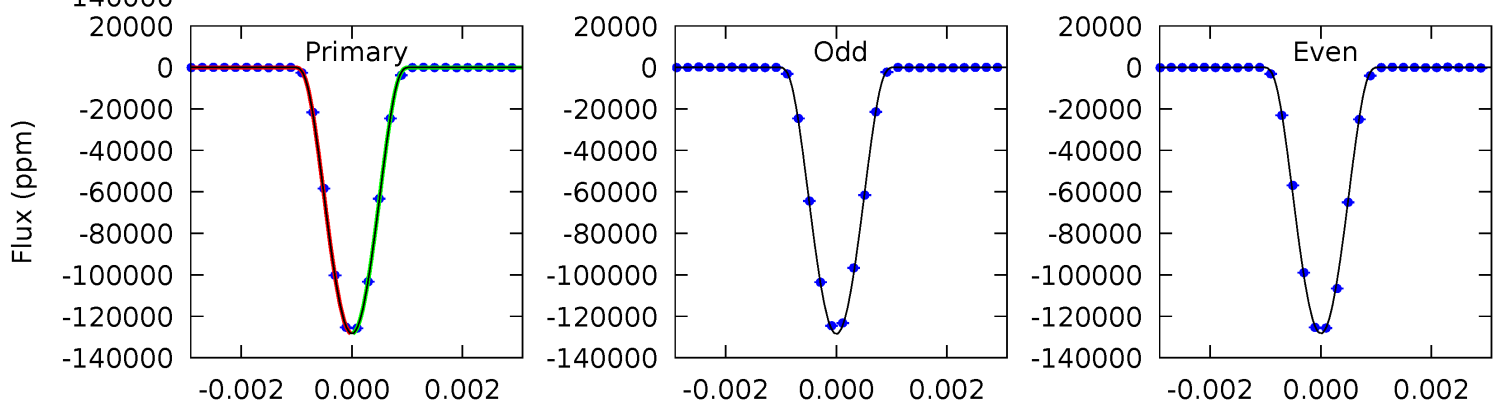
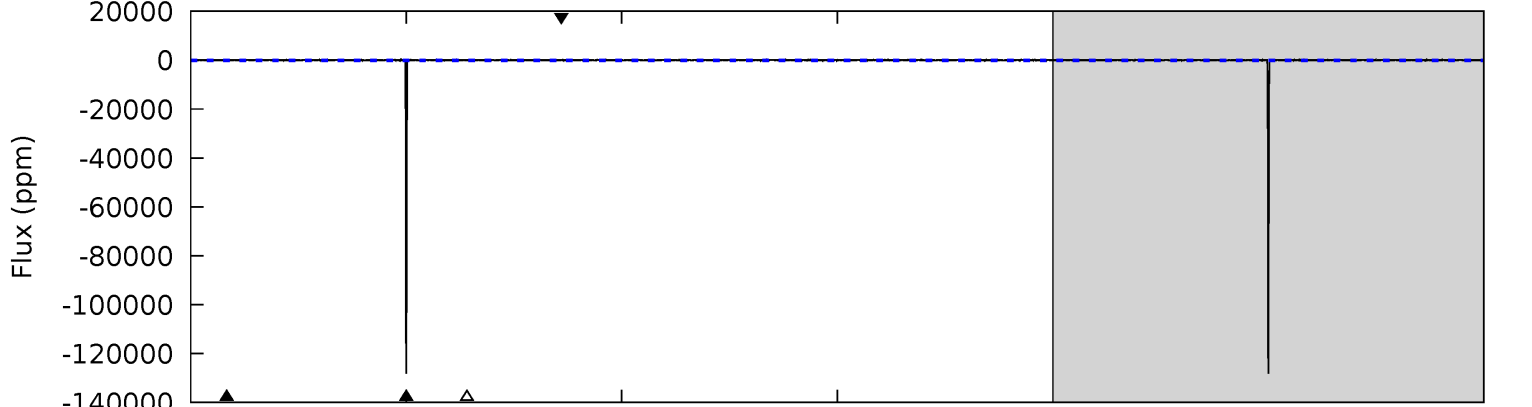
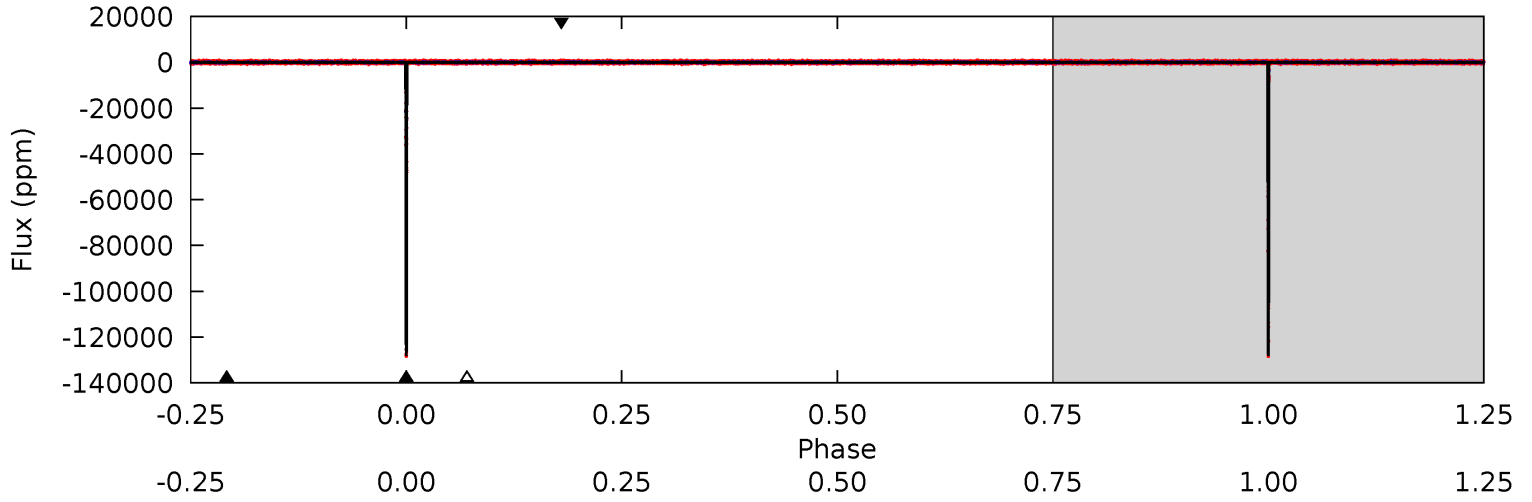
TCE 011147814-01 P= 95.178553 Days $T_0=224.595143$ (BKJD)



DV Model-Shift Uniqueness Test

011147814-01, P = 95.178321 Days, E = 129.418448 Days

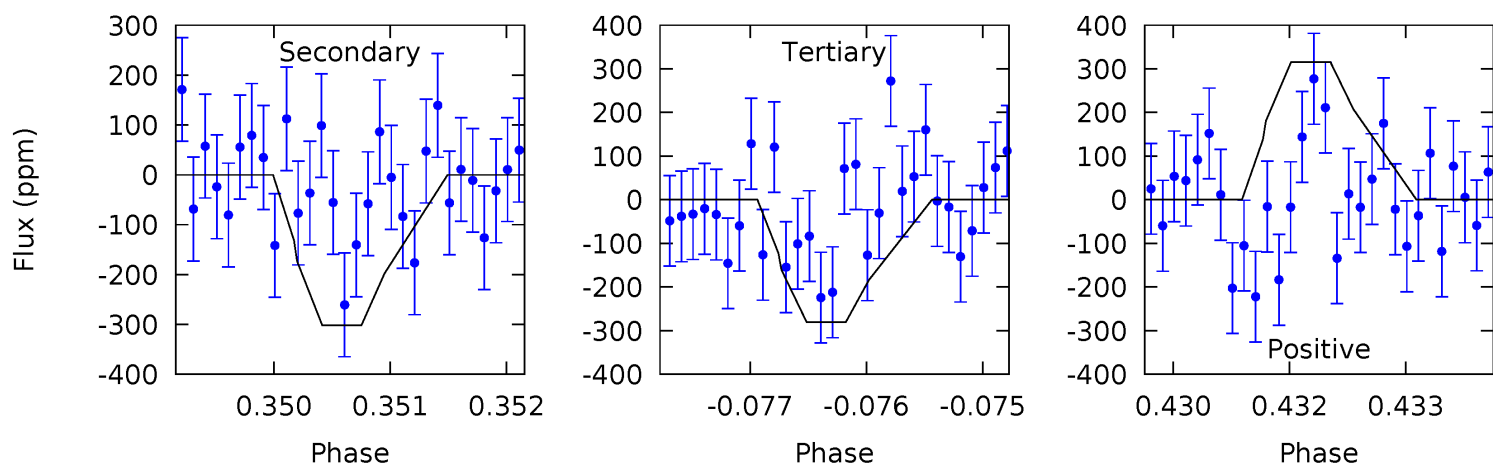
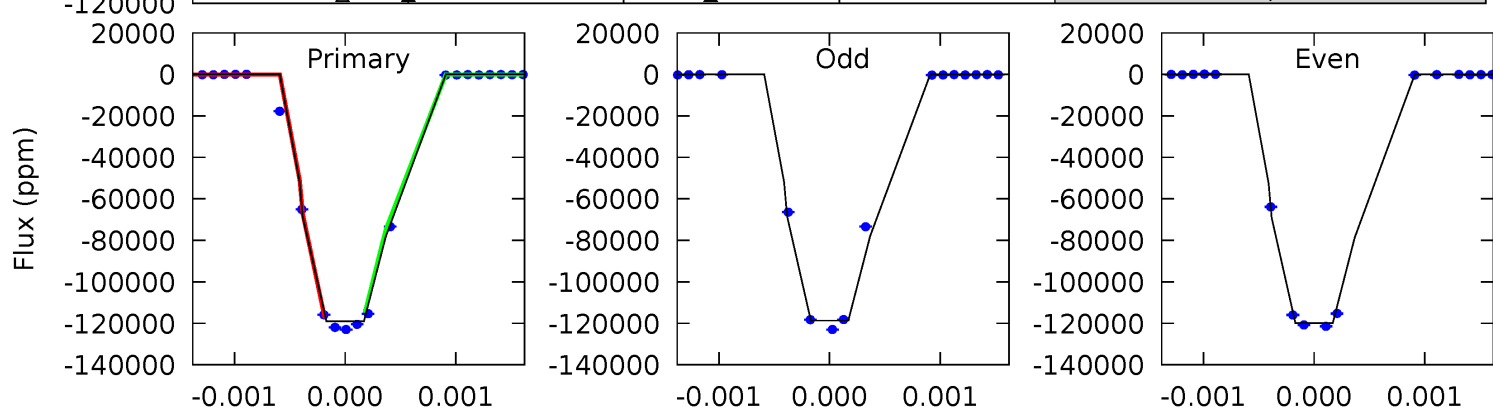
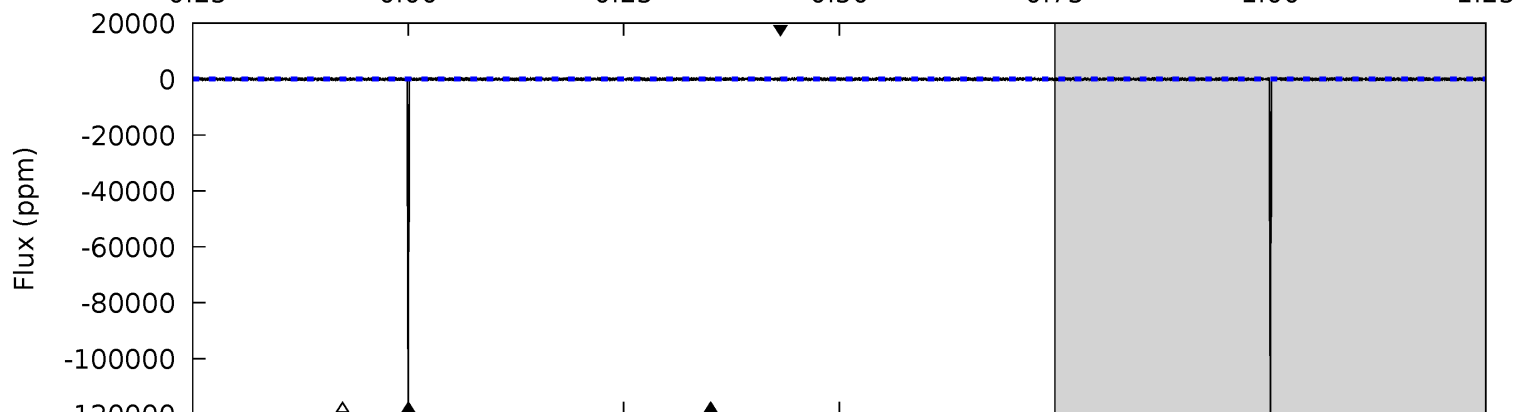
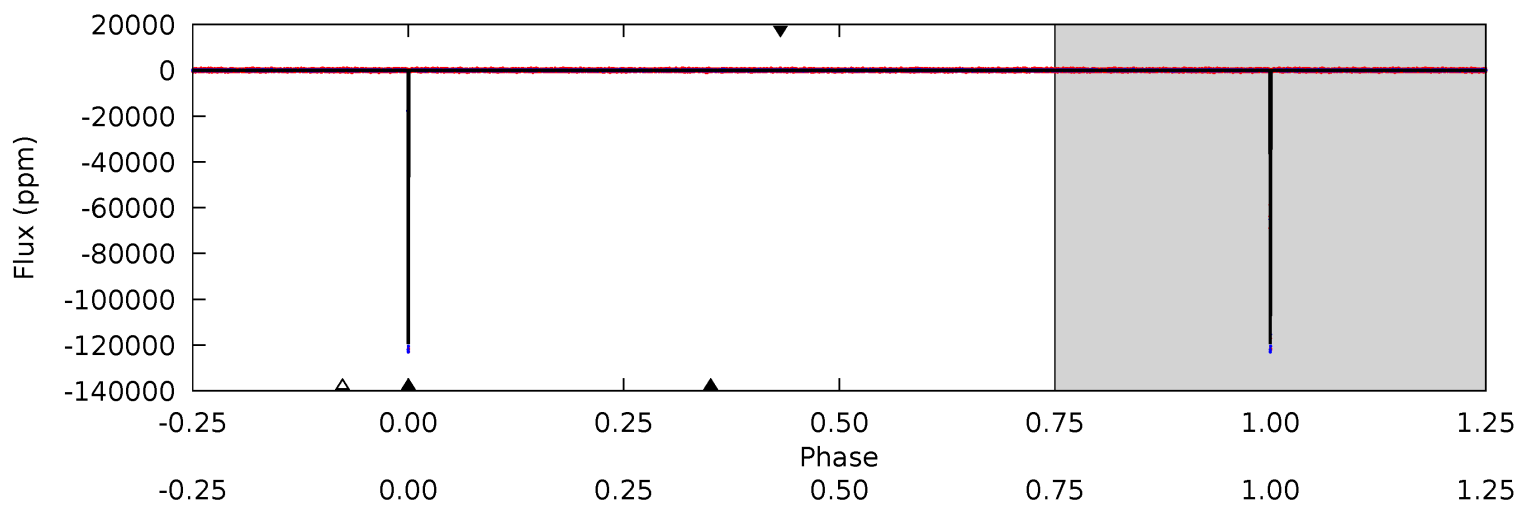
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5490	7.71	6.69	7.40	5.35	3.13	1.81	5483	5483	1.01	0.31	5.29	1.00	0.00	0.67



Alt Model-Shift Uniqueness Test

011147814-01, P = 95.178553 Days, E = 129.416590 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
1921	4.86	4.52	5.09	5.44	3.27	4.05	1916	1915	0.34	-0.23	10.1	1.00	0.00	0



Stellar Parameters For KIC 011147814

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	4523^{+136}_{-123}	$4.615^{+0.052}_{-0.024}$	$-0.240^{+0.300}_{-0.300}$	$0.653^{+0.052}_{-0.058}$	$0.641^{+0.071}_{-0.051}$	$3.244^{+0.751}_{-0.390}$
	+3%/-3%	+1%/-1%	+125%/-125%	+8%/-9%	+11%/-8%	+23%/-12%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 011147814-01 / KOI 3334.01

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-180 ± 23	$28.78^{+1.50}_{-1.37}$	377^{+14}_{-12}	1821^{+37}_{-36}	15^{+2}_{-2}
Alt.	-302 ± 62	$25.13^{+1.28}_{-1.25}$	377^{+13}_{-12}	1967^{+48}_{-53}	33^{+7}_{-6}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

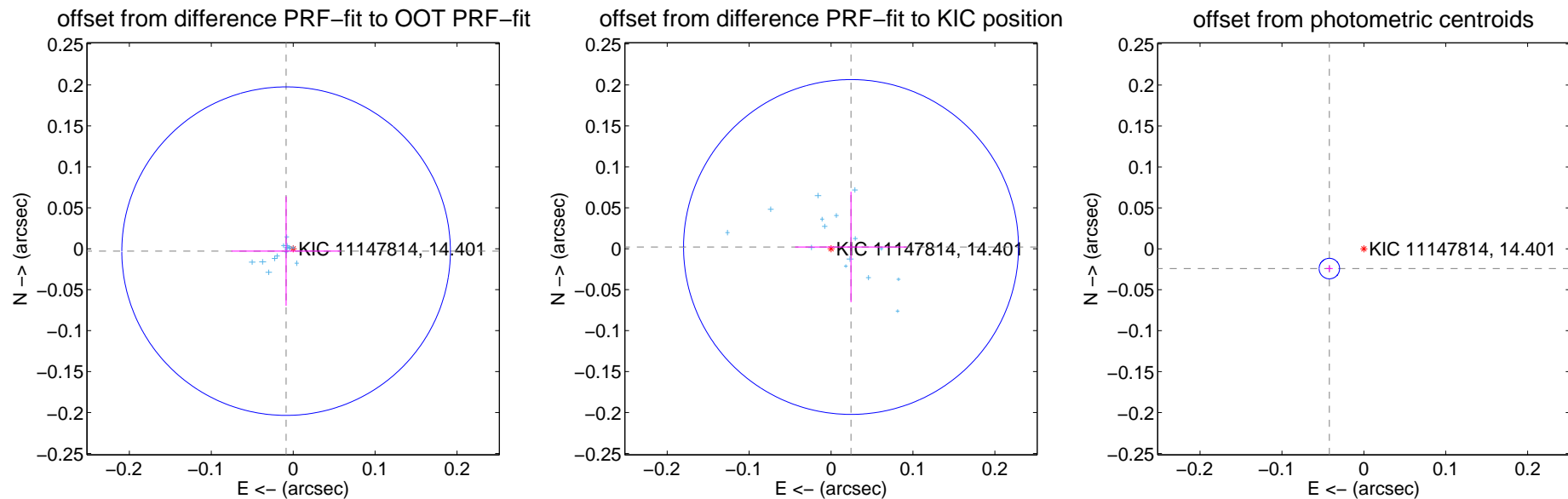
DV Centroid Data

Supplemental centroid analysis for 011147814-01. Kepler magnitude: 14.40. Transit SNR 2484.76

There are 15 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.07 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.009 ± 0.067	0.14	0.009 ± 0.067	-0.003 ± 0.067
PRF-fit source offset from KIC position	0.024 ± 0.068	0.36	-0.024 ± 0.068	0.002 ± 0.067
photometric centroid source offset	0.05 ± 0.00	11.64	0.04 ± 0.00	-0.02 ± 0.00



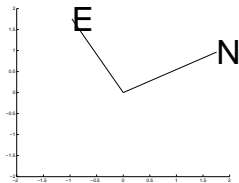
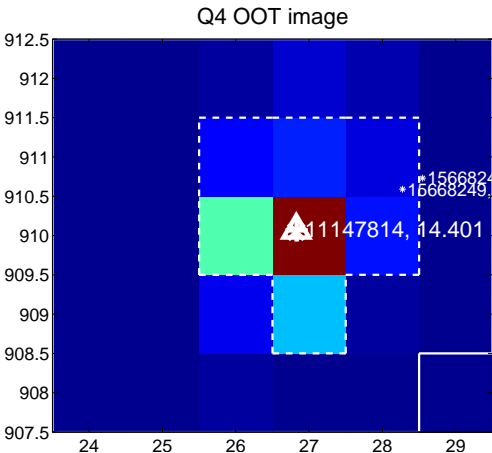
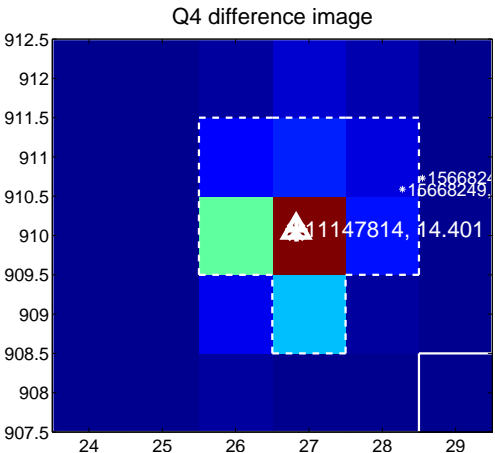
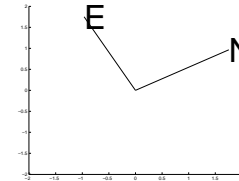
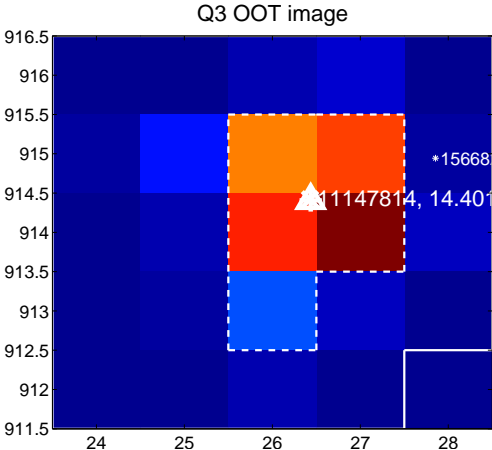
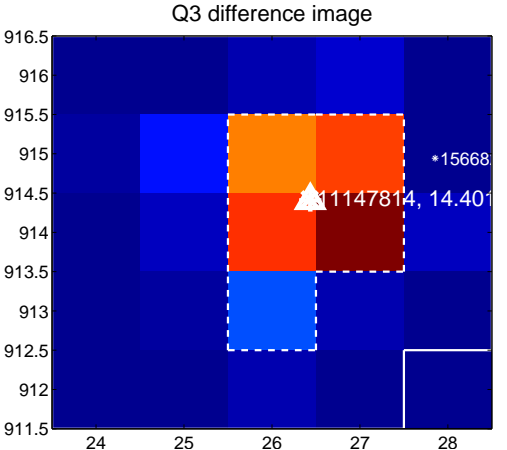
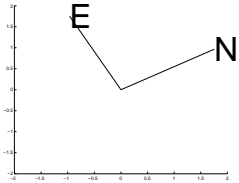
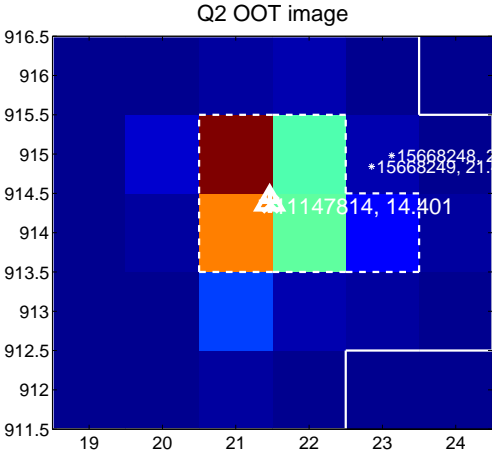
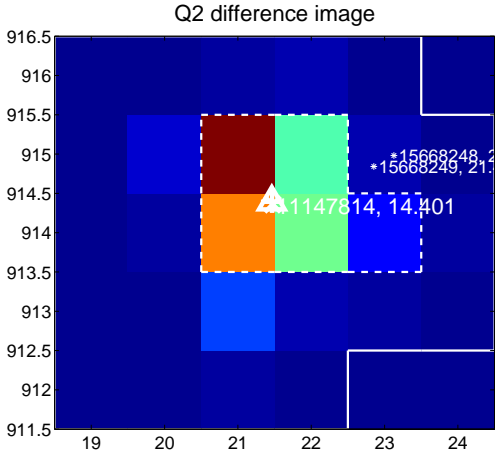
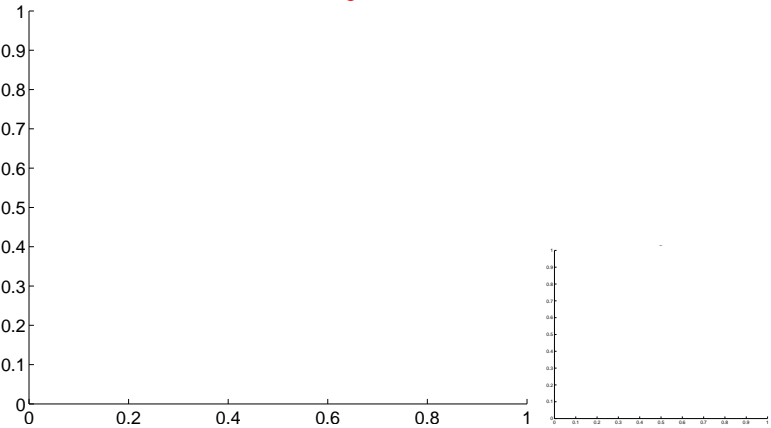
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.

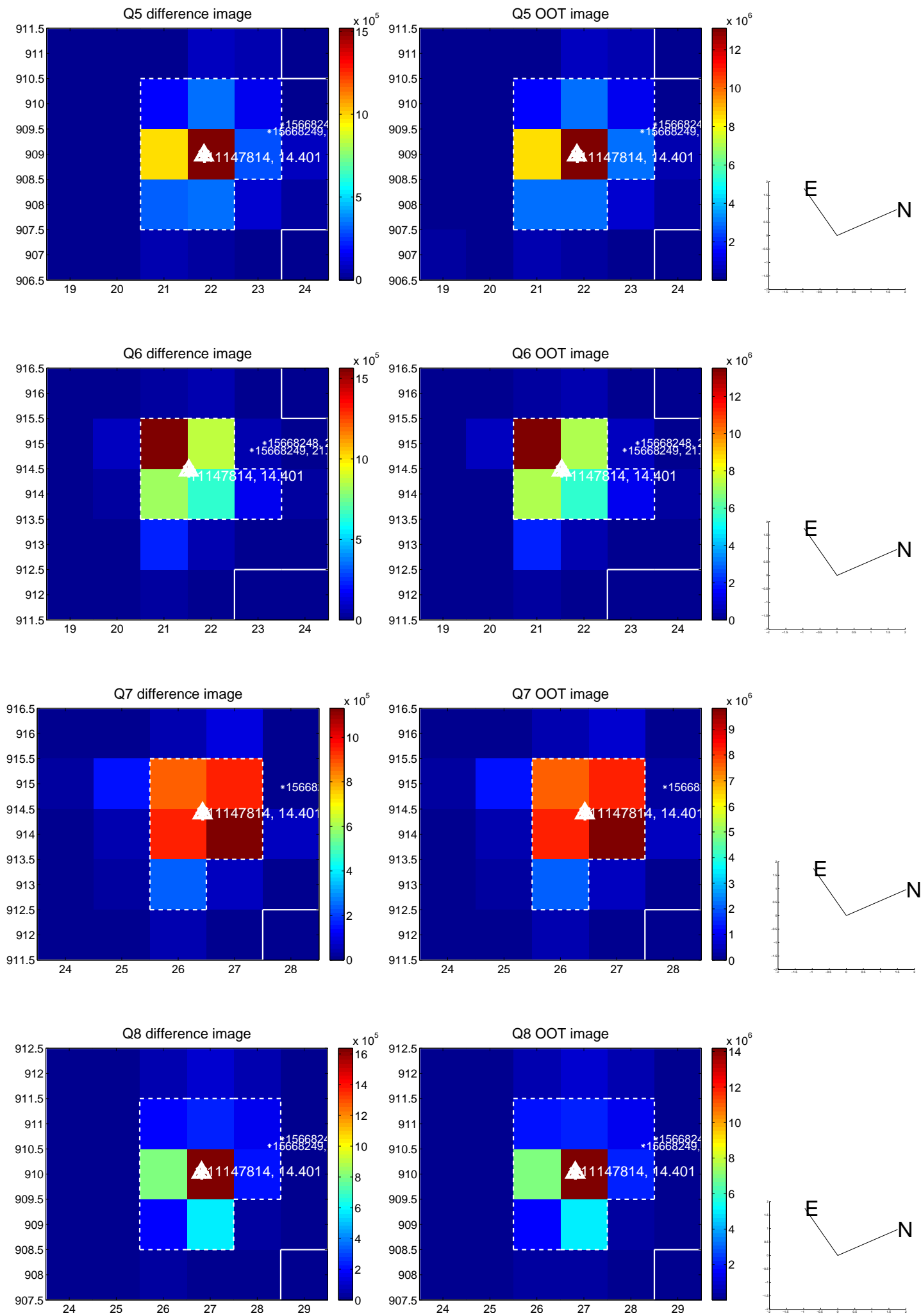
Q1 no difference image



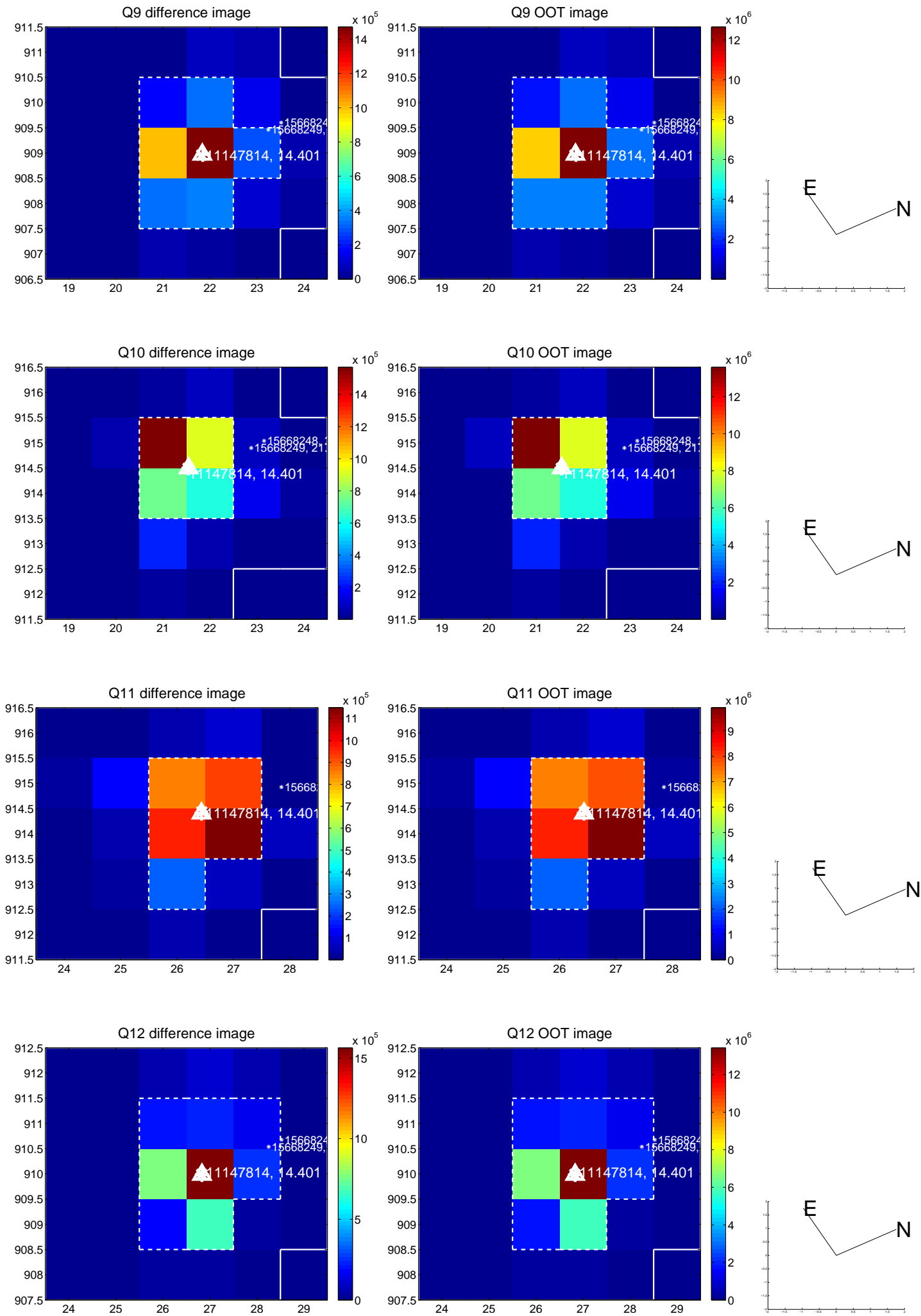
Q1 no OOT image



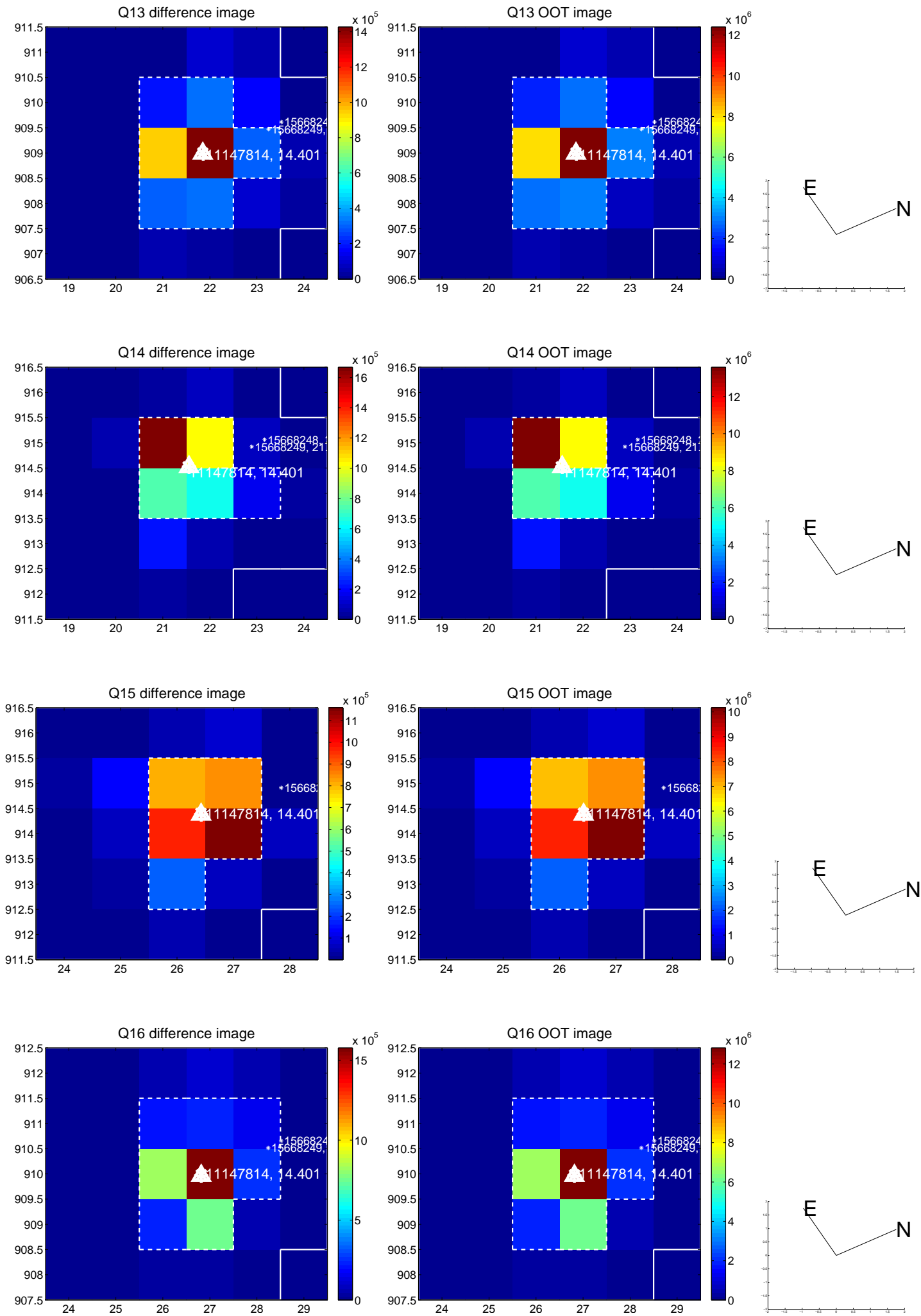
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



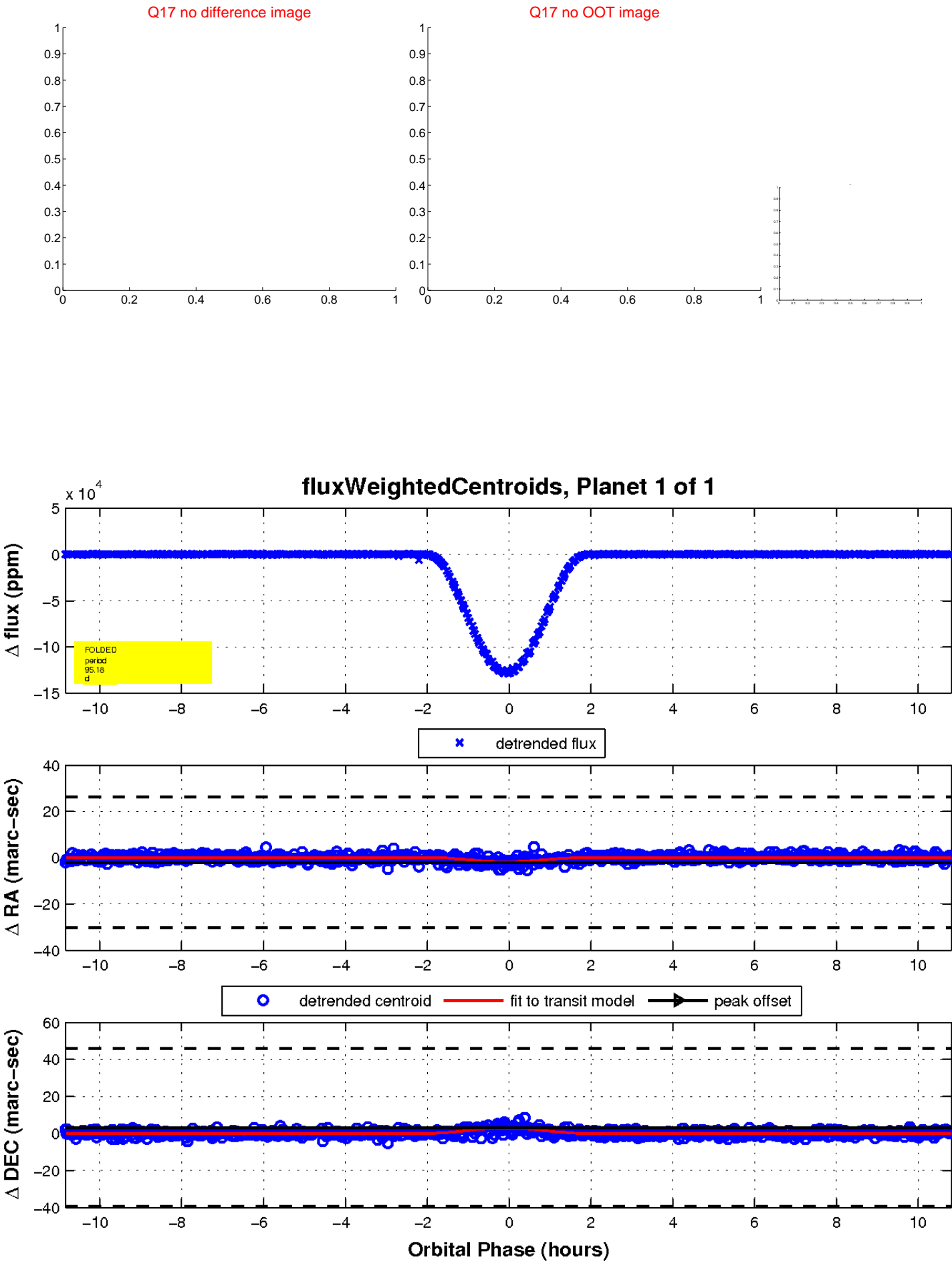
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

